

**ABSTRACT OF THE DISCLOSURE**

[0191] Systems and methods are described for multidimensional signal modulation and/or demodulation for data communications. A method includes modulating a carrier signal in a first domain selected from the group consisting of phase, frequency, amplitude, polarization and spread; modulating the carrier signal in a second domain selected from the group consisting of phase, frequency, amplitude, polarization and spread; and modulating the carrier signal in a third domain selected from the group consisting of phase, frequency, amplitude, polarization and spread.